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RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/459,062

DATE: 06/19/2001  
 TIME: 12:40:34

Input Set : A:\17634341.app  
 Output Set: N:\CRF3\06192001\I459062.raw

**ENTERED**

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3 <110> APPLICANT: Tao, Tao
4     Skiadopoulos, Mario H.
5     Collins, Peter L.
6     Murphy, Brian R.
8 <120> TITLE OF INVENTION: CONSTRUCTION AND USE OF RECOMBINANT PARAINFLUENZA
9     VIRUSES EXPRESSING A CHIMERIC GLYCOPROTEIN
11 <130> FILE REFERENCE: 17634-000340US
13 <140> CURRENT APPLICATION NUMBER: 09/459,062
C--> 14 <141> CURRENT FILING DATE: 2001-06-04
16 <150> PRIOR APPLICATION NUMBER: 09/083,793
17 <151> PRIOR FILING DATE: 1998-05-22
19 <150> PRIOR APPLICATION NUMBER: 60/059,385
20 <151> PRIOR FILING DATE: 1997-09-19
22 <150> PRIOR APPLICATION NUMBER: 60/047,575
23 <151> PRIOR FILING DATE: 1997-05-23
25 <160> NUMBER OF SEQ ID NOS: 57
27 <170> SOFTWARE: PatentIn Ver. 2.1
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30 <211> LENGTH: 42
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32 <213> ORGANISM: Artificial Sequence
34 <220> FEATURE:
35 <223> OTHER INFORMATION: Description of Artificial Sequence: Flanking
36     sequence of measles HA gene insert for N-P and P-M
37     junctions.
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51     junctions.
53 <400> SEQUENCE: 2
54 gatccaacaa agaaacgaca ccgaacaaac cttaag                36
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58 <211> LENGTH: 101
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60 <213> ORGANISM: Artificial Sequence
62 <220> FEATURE:
63 <223> OTHER INFORMATION: Description of Artificial Sequence: Flanking
64     sequence of measles HA gene insert for HN-L
65     junction.
67 <400> SEQUENCE: 3
68 aggcttaaaa gggaaatata aaaaacttag gagtaaagt acgcaatcca actctactca 60

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75 <213> ORGANISM: Artificial Sequence  
77 <220> FEATURE:  
78 <223> OTHER INFORMATION: Description of Artificial Sequence: Flanking  
79 sequence of measles HA gene insert for HN-L  
80 junction.  
82 <400> SEQUENCE: 4  
83 tcataattaa ccataatatg catcaatcta tctataatac aagtatatga taagtaatca 60  
84 gcaatcagac aataggcct 79  
87 <210> SEQ ID NO: 5  
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89 <212> TYPE: DNA  
90 <213> ORGANISM: Artificial Sequence  
92 <220> FEATURE:  
93 <223> OTHER INFORMATION: Description of Artificial Sequence: Forward primer  
94 for PCR of measles HA gene insert for N-P and P-M  
95 junction.  
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98 ttaatcttaa gaatatacaa ataagaaaaa cttaggatta aagagcgatg tcaccacaac 60  
99 gagaccggat aaatgccttc tac 83  
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108 <223> OTHER INFORMATION: Description of Artificial Sequence: Reverse primer  
109 for PCR of measles HA gene insert for N-P and P-M  
110 junctions.  
112 <400> SEQUENCE: 6  
113 attatttgctt aagggttgtt cggtgtcggt tctttgttgg atccttatctg cgattgggttc 60  
114 catcttc 67  
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119 <212> TYPE: DNA  
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122 <220> FEATURE:  
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124 for PCR of measles HA gene insert for HN-L  
125 junction.  
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132 <211> LENGTH: 68  
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137 <223> OTHER INFORMATION: Description of Artificial Sequence:  
138 Reverse/Forward primer for PCR of measles HA gene  
139 insert for HN-L junction.  
141 <400> SEQUENCE: 8  
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143 gtccttcc 68  
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151 <220> FEATURE:  
152 <223> OTHER INFORMATION: Description of Artificial Sequence: Forward primer  
153 for PCR of measles HA gene insert for HN-L  
154 junction.  
156 <400> SEQUENCE: 9  
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158 atcttatctat aatacaa 77  
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162 <211> LENGTH: 28  
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171 <400> SEQUENCE: 10  
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180 <220> FEATURE:  
181 <223> OTHER INFORMATION: Description of Artificial Sequence:  
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183 insert for HN-L junction.  
185 <400> SEQUENCE: 11  
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190 <211> LENGTH: 25  
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194 <220> FEATURE:  
195 <223> OTHER INFORMATION: Description of Artificial Sequence: Reverse primer  
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200 ccatcttccc gggtgactgt gcagc 25  
203 <210> SEQ ID NO: 13  
204 <211> LENGTH: 23

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205 <212> TYPE: DNA  
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208 <220> FEATURE:  
209 <223> OTHER INFORMATION: Description of Artificial Sequence: Upstream HPIV2  
210 HN primer.  
212 <400> SEQUENCE: 13  
213 gggccatgga agattacagc aat 23  
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217 <211> LENGTH: 25  
218 <212> TYPE: DNA  
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223 HPIV2 HN primer.  
225 <400> SEQUENCE: 14  
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230 <211> LENGTH: 31  
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232 <213> ORGANISM: Artificial Sequence  
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236 HN primer.  
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243 <211> LENGTH: 30  
244 <212> TYPE: DNA  
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251 <400> SEQUENCE: 16  
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262 primer.  
264 <400> SEQUENCE: 17  
265 agtggctaat tgcattgcat ccacat 26  
268 <210> SEQ ID NO: 18  
269 <211> LENGTH: 24  
270 <212> TYPE: DNA  
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273 <220> FEATURE:  
274 <223> OTHER INFORMATION: Description of Artificial Sequence: HPIV1 HN

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275 primer.  
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 281 <210> SEQ ID NO: 19  
 282 <211> LENGTH: 15492  
 283 <212> TYPE: DNA  
 284 <213> ORGANISM: Artificial Sequence  
 286 <220> FEATURE:  
 287 <223> OTHER INFORMATION: Description of Artificial Sequence: Sequence of  
 pFLC.PIV32, 15492 bp in sense orientation.  
 290 <400> SEQUENCE: 19  
 291 accaaacaag agaagaaaact tgtctggaa tataaattt aacttaaatt aacttaggat 60  
 292 taaagacatt gactagaagg tcaagaaaag ggaactctat aatttcaaaa atgttgagcc 120  
 293 tatttatac atttaatgca cgtaggcaag aaaacataac aaaatcagcc ggtggagcta 180  
 294 tcatttcctgg acagaaaaat actgtctcta tattcgcctt tggaccgaca ataactgatg 240  
 295 ataatgagaa aatgacattt gctttcttat ttctatctca ttcaacttagat aatgagaaac 300  
 296 aacatgcaca aaggccaggg ttcttgggtt ctttattgtc aatggcttgc gccaatccag 360  
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 298 agaaagatct aaaacggcaa aagtatggag gatttgggt taagacgaga gagatgatat 480  
 299 atgaaaagac aactgattgg atatttggaa gtgacctgga ttatgatcat gaaactatgt 540  
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 303 tgcaggcagg gctggatttg agcgggtaca cagttgtca gattgggtca atcatgcgg 780  
 304 ctcaacagag cttggtaact cttatgggtt aaacattaat aacaatgaat accagcagaa 840  
 305 atgacctcac aaccatagaa aagaatatac aaatttttgc caactacata agagatgcag 900  
 306 gtctcgcttc attctcaat acaatcagat atgaaatttgc gaccagaatg gcagctttgc 960  
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 315 ttcaatatgc ctggccagaa gaaatagaa gcatgtatca gacttgacca gctacagaat 1500  
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 323 aaacgacaca atcaacacaa gaacccagca actcgttgc accatctgtc aaccagaaat 1980  
 324 caaaccacaa gaaacaaggc agaaagatgtt tggatcaact gacaaaaataa gacagtccgg 2040  
 325 gtcatcacac gatgtacaa cagaagcaaa agatagaat attgtatcagg aaactgtaca 2100  
 326 gagaggaccc gggagaagaa gcatgttgc tagtagatgtt gatgttgc tctctggagg 2160  
 327 aatccccaga agcatcacac attctaaaaaa tggaacccaa aacacggagg atattgtatct 2220  
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